

What is claimed is:

1. An apparatus identifying a type of a disc, comprising:
an RF (radio frequency) amplifier amplifying light reflected by the disc;
an LPP signal detector detecting an LPP (Land Pre-Pit) signal from output signals of the RF amplifier; and
a system controller identifying a type of the disc according to whether the LPP signal is detected by the LPP signal detector.
2. The apparatus of claim 1, wherein the LPP signal detector detects the LPP signal by slicing push-pull signals output from the RF amplifier at a constant level.
3. The apparatus of claim 2, wherein the system controller determines that the disc is a DVD(-) type disc when the LPP signal is detected and that the disc is a DVD(+) type disc when the LPP signal is not detected.
4. The apparatus of claim 1, wherein the system controller determines that the disc is a DVD(-) type disc when the LPP signal is detected and that the disc is a DVD(+) type disc when the LPP signal is not detected.
5. A method of discriminating a type of a disc, comprising:
detecting an LPP signal from signals reproduced from the disc; and
identifying a type of the disc according to whether the LPP signal is detected.
6. The method of claim 5, wherein the detecting the LPP signal includes detecting the LPP signal by slicing push-pull signals at a constant level.
7. The method of claim 6, wherein the identifying of the type of the disc includes determining that the disc is a DVD(-) type disc when the LPP signal is detected and that the disc is a DVD(+) type disc when the LPP signal is not detected.

8. The method of claim 5, wherein the identifying of the type of the disc includes determining that the disc is a DVD(-) type disc when the LPP signal is detected and that the disc is a DVD(+) type disc when the LPP signal is not detected.

9. A method of identifying a type of a disc as either a DVD(-) type disc or a DVD(+) type disc, comprising:
determining whether an LPP is included in a wobble signal from the disc; and
identifying the disc as a DVD(-) type disc if the LPP is present or as a DVD(+) type disc if the LPP is not present.

10. An apparatus identifying a disc type, comprising:
an RF amplifier that produces a push-pull signal from a light wave reproduced from a disc; and
an LPP signal detector that detects a certain voltage level in the push-pull signal;
wherein if the certain voltage level is detected the disc is identified as a DVD(-) type disc and if the certain voltage level is not detected the disc is identified as a DVD(+) type disc.

11. The apparatus of claim 10, wherein the LPP detector detects an LPP in the push-pull signal by detection of the certain voltage level.

12. The apparatus of claim 10, further comprising:
a system controller that controls a disc drive and identifies the disc type.

13. The apparatus of claim 10, further comprising:
a servo controller that enables tracking and focusing.

14. The apparatus of claim 10, further comprising:
an optical detector that detects the light wave reflected from the disc.

15. The apparatus of claim 14, wherein the optical detector comprises:

a structure divided into four sections having a first photodiode, a second photodiode, a third photodiode, and a fourth photodiode.

16. The apparatus of claim 10, wherein the RF amplifier comprises:

a current-to-voltage converter having a first amplifier, a second amplifier, a third amplifier, and a fourth amplifier, wherein the four amplifiers convert output signals from corresponding first through fourth photodiodes of the optical detector to voltage values; and

a push-pull operator having a first adder, a second adder, and a subtracter, wherein the first adder adds output signals of the first amplifier and the second amplifier to produce a first added signal, the second adder adds output signals of the third amplifier and the fourth amplifier to produce a second added signal, and the subtracter adds the first added signal and the second added signal to produce the push-pull signal.

17. The apparatus of claim 10, wherein the LPP detector detects an LPP signal according to detection of the certain voltage level by slicing the push-pull signal at a constant level.

18. The apparatus of claim 10, further comprising:

an optical detector having a bi-sectional structure that includes a first photodiode and a second photodiode.

19. A method of identifying a disc type, comprising:

analyzing an output signal to determine whether the output signal includes a certain voltage level, wherein if the output signal includes the certain voltage level the disc is identified as a DVD(-) type disc and if the output signal does not include the certain voltage level the disc is identified as a DVD(+) type disc.

20. A method of identifying a type of a disc immediately after controlling a tracking servo, comprising:

producing a push-pull signal from a signal reproduced from the disc;

detecting an LPP signal by slicing the push-pull signal;

wherein the disc is identified as a first DVD type disc if the LPP signal is detected and the disc is identified as a second DVD type disc if the LPP signal is not detected.

21. The method of claim 20, further comprising:
enabling tracking and focusing modes of a disc drive.